

# **TITLE V PERMIT STATEMENT**

## **Title V Renewal**

<b>Facility Name:</b>	StonePeak Ceramics, Inc.
<b>City:</b>	Crossville
<b>County:</b>	Cumberland

<b>Date Application Received:</b>	February 13, 2015 and Amended Application received on May 19, 2016
<b>Date Application Deemed Complete:</b>	May 19, 2016

<b>Emission Source Reference No.:</b>	18-0120
<b>Permit No.</b>	569918

### **INTRODUCTION**

This narrative is being provided to assist the reader in understanding the content of the attached Title V operating permit. This Title V Permit Statement is written pursuant to Tennessee Air Pollution Control Rule 1200-03-09-.02(11)(f)1.(v). The primary purpose of the Title V operating permit is to consolidate and identify existing state and federal air requirements applicable to **StonePeak Ceramics, Inc.** and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the Title V Operating Permit. It describes the facility receiving the permit, the applicable air permitting requirements and their significance, and the compliance status of the facility with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

#### **Acronyms**

PSD - Prevention of Significant Deterioration  
NESHAP - National Emission Standards for Hazardous Air Pollutants  
NSPS - New Source Performance Standards  
MACT - Maximum Achievable Control Technology  
NSR - New Source Review

#### **I. Identification Information**

##### **A. Source Description**

List and describe emission source(s):

StonePeak Ceramics, Inc. is a Ceramic Tile manufacturing facility, which had been in operation since July 2002. This facility is subject to **40 CFR part 63 Subpart RRRRRR**—National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing Area Sources.

**40 CFR 60, Subpart 000 Nonmetallic Mineral Processing facility-** Since the main purpose of the wet ball mill located at the facility (based on Division' inspection of the source) is to homogenize and blend pre-processed mineral products with water and is not used for the crushing of any nonmetallic mineral as stated in 40 CFR 60.671, therefore provision of 40 CFR 60, Subpart 000 does not apply to this source. However, the Spray Dryers at this facility are subject to **40 CFR part 60, Subpart UUU – Standards of Performance for Calciners and Dryers.**

**This source consists of the following operations:**

**18-0120-01** Raw Materials Handling – Raw materials are drawn from stockpiles and sized. Source consists of storage, feeding, grinding, and mixing operations with Baghouse Control (Baghouse #1, approximate flow rate **31,702 CFM**) – **THIS SOURCE IS NOT SUBJECT TO NSPS SUBPART 000.**

**18-0120-02** Three (3) Natural Gas Fired Spray Dryers (atomizers) to Produce Sized Spheroid Pellets. Baghouses as Controls: Baghouse #2, approximate flow rate: 50,723 CFM (Silos, Conveyors and Cleaning hoses), Baghouse #3, approximate flow rate: 20,897 CFM (Atomizer #1), Baghouse #4, approximate flow rate 20,897 CFM (Atomizer #2), and Baghouse #5, approximate flow rate 20897 CFM (Atomizer #3) (**NSPS**) 23.8 MMBTU/Hr maximum heat input for each dryer, approximate total flow rate: 113,414 CFM.

**18-0120-03 Greenware Forming–** Press Machines and Six (6) Vertical Dryers (uncontrolled) for pressing and drying Operation followed by Greenware brushing and Stone Look application Process. Baghouses #6 and #7 control Tile Pressing. Baghouses #8, #9 and #10 control the Kiln entry, greenware brushing and stone-look application. Maximum Dryer Heat input Capacity of 9.52 MMBTU/Hr for all six Dryers combined – natural gas and propane fired only. Total Flow rate for all baghouses: 173,742 CFM, This source is subject to GACT for the Stone-Look Application Process.

**18-0120-04 Firing –** Three (3) Kilns for Firing formed Greenware Tile with Lime Injected baghouses: Baghouse #11 and #12 controlling Kilns #1 and #2. Baghouse #13 controlling Kiln #3. **Total Flow Rate:**  
Kiln #1 controlled by Baghouse #11 with exhaust flow of 10,145 dscfm  
Kiln #2 controlled by Baghouse #12 with exhaust flow of 10,145 dscfm  
Kiln #3 controlled by Baghouse #13 with exhaust flow of 10,145 dscfm

(**Note-** kilns #1, #2 and #3 all have bypass stacks, each at 10,145 dscfm), Combined maximum burner capacity of 35.69 mmbtu/hr -Natural gas fired only. **This is a GACT Source.**

**18-0120-05 Product Preparation** – Tile Sizing, cleaning, polishing, sorting, and packaging operations. Baghouse #14 as control - Exhaust flow of 6340 dscfm approximately

**18-0120-06 House Cleaning** – Dust generated throughout the manufacturing process (Kiln Input and Brushing, Grinding Department, Pressing Department, and Sorting Department) is collected at various points throughout the plant. Baghouses for Control (#15 through #18, each has a flow rate of 1,395 CFM).  
**Note-**  $1395 \times 4 \text{ units} \times 60\text{min/hr} \times 0.015 \text{ gr/dscf} \times 1 \text{ \#/7000 grains} = 0.72 \text{ lbs/hr}$

The following source is now being removed:

~~**18-0120-07 New Glazed Tile Manufacturing Process – Mechanical Tile Cleaning, Heating, Spray Coating of Glaze Slurry and Kiln Firing – Natural Gas as Fuel – Baghouse E-19 for the Control of PM emissions from Spray Coating of Glaze Slurry and for Mechanical Tile Cleaning Operation.**~~

**18-0120-08** Emergency Engines: Three (3) Emergency Generators Engines are described in the table below. The information shown below was included in the April 17, 2014 Minor Modification #1 request. All three (3) Emergency Generators Engines are subject to the Federal NESHAP, Subpart ZZZZ as indicated.

**The following sources are added to their previous Title V permit through a Minor Modification application (MM # 5), but according to the Permittee's Title V renewal application have not started up yet. See changes under MM#5 listed below for detail.**

**18-0120-09** Two (2) Natural Gas Fired Spray Dryers (atomizers) to Produce Sized Spheroid Pellets. Baghouses as Controls: Baghouse **E-21 (aka A4)**, approximate flow rate: **31,854 CFM** (Atomizer #4), Baghouse **E-22 (aka A5)**, approximate flow rate: **3,059 CFM** (Atomizer #5), (**Atomizers #4 and #5 are subject to NSPS**), **30.0 MM Btu/hr** combined maximum heat input, Baghouse **E-23**, approximate flow rate: **37,921 CFM** , (Silos, Conveyors and Cleaning Hoses), approximate total source flow rate: **72,834 CFM**

**18-0120-10 Greenware Forming**– Press Machines and One (1) Horizontal Dryer (uncontrolled) for pressing and drying Operation followed by Greenware brushing and Stone Look application Process. Baghouse **E-24** controls Tile Pressing Operation. Baghouse **E-25** controls the Kiln entry, Greenware brushing and Stone-look Application. Maximum Heat input of Horizontal Dryer Capacity is **35.0 MMBTU/hr** (Natural-Gas Fired only). Total Flow rate for all baghouses: **46,770 CFM**  
**This source is subject to GACT for the Stone-Look Application Process (Baghouse E-25 only)**

**18-0120-11** Firing – One (1) Kiln #4 for Firing formed Greenware Tiles with Lime Injected Baghouse **E-26 (aka K4)** Kiln #4 (New) controlled by Baghouse **E-26 (aka K4)** with exhaust flow of 18,455 dscfm.

(Note- kilns #4 has a bypass stack, at 18,455 dscfm - maximum burner capacity of **40.6 mmbtu/hr** -Natural gas fired only - **GACT Source**.

**This source is subject to the requirements of COMPLIANCE ASSURANCE MONITORING (CAM) PLAN. (See Attachment #5 of Title V renewal permit..**

## **B. Facility Classification**

### **1. Attainment or Non-Attainment Area Location**

Area is designated as an attainment area for all criteria pollutants. Company is located in a Class II area (this means that the facility is not located within a national park or national wilderness area; see 40 CFR 52.21(e) for complete definition).

## **C. CAM Applicability**

In a letter dated April 26, 2006 to the Division, the permittee indicated that all of the sources at the facility are affected by CAM. The permittee indicated that each of the control devices at the facility are not “large PSEU’s” and compliance assurance is based on periodic monitoring. Because these units are not “Large PSEU’s” the CAM requirements will not apply until issuance of Title V Renewal permit , and are not applicable with the issuance of the initial Title V permit.

A discussion of CAM applicability follows:

### **§ 64.2 Applicability.**

(a) **General applicability.** Except for backup utility units that are exempt under paragraph (b)(2) of this section, the requirements of this part shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria:

(1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;

(2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and

(3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. For purposes of this paragraph, “potential pre-control device emissions” shall have the same meaning as “potential to emit,” as defined in §64.1, except that emission reductions achieved by the applicable control device shall not be taken into account.

Note that the three kilns could possibly each have uncontrolled emissions of (potentially) greater than 100 tons per year of SO<sub>2</sub>. However, please note that for (a) **Large pollutant-specific emissions units (at §64.5)**: For all pollutant-specific emissions units with the potential to emit (taking into account control devices to the extent appropriate under the definition of this term in §64.1) the

applicable regulated air pollutant in an amount equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, the owner or operator shall submit the information required under §64.4.

Large PSEU 's must submit CAM information at the time that the initial application is submitted. However, for 64.5(b), other pseu's (not large) must submit the information required under 64.4 as a part of the renewal permit.

Specifically, the controlled SO<sub>2</sub> emission rate measured in a stack test conducted on 10-12, 2005 for one kiln is 2.62 pounds per hour. Therefore, the individual kilns are not considered to be "Large PSEU's." Also, the controlled emissions of HF and HCl are less than the 10 ton per year HAP threshold, and none of these are "Large PSEU's." The individual allowable emission rates for these HAP's are as follows:

HCl - **9.56** - Tons per Year

HF **9.2** - Tons per Year

Because this is an initial Title V permit, and these are not large PSEU's, the CAM submittal information is not required until the renewal is under review. Therefore, CAM for SO<sub>2</sub> or HCl and HF is not included in this permit.

#### D. Regulatory Status

##### 1. PSD/NSR

This facility *is not* a major source under PSD.

Title V Major Source Status by Pollutant:

Pollutant	Is the pollutant emitted?	If emitted, what is the facility's status?	
		Major Source Status	Non-Major Source Status
PM	Yes	X	
PM <sub>10</sub>	Yes	N/A	N/A
SO <sub>2</sub>	Yes	X	
VOC	Yes		X
NO <sub>x</sub>	Yes	X	
CO	Yes	X	
Individual HAP	Yes		X
Total HAPs	Yes		X

##### 3. MACT / GACT Standards

This facility is subject to NESHAP, 40 CFR 63 Subpart **RRRRRR**—National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing Area Sources. (**GACT Source**). This facility also is subject to provisions of Subpart **ZZZZ** for the three (3) emergency generators at Source 18-0120-08.

##### 4. Program Applicability

Are the following programs applicable to the facility?

PSD     **no**  
NESHAP **Yes**  
NSPS     **no**

## **II. Compliance Information**

### **A. Compliance Status**

Is the facility currently in compliance with all applicable requirements? **Yes**  
If no, explain.

Are there any applicable requirements that will become effective during the permit term? **No.**

## **III. Other Requirements**

### **A. Emissions Trading**

The facility is not involved in an emission trading program.

### **B. Acid Rain Requirements**

This facility is not subject to any requirements in Title IV of the Clean Air Act.

### **C. Prevention of Accidental Releases**

Not Applicable

## **IV. Public Participation Procedures**

Notification of this draft permit was mailed to the following environmental agencies:

- 1. Kentucky Department for Environmental Protection – Division for Air Quality**
- 2. Knox County Dept. of Air Quality Management**

### **Facility-wide Potential Emissions**

Potential emissions of criteria air pollutants are listed below:

<b>REGULATED POLLUTANTS</b>	<b>POTENTIAL EMISSIONS TONS PER 12-MONTH BASIS</b>
<b>PARTICULATE MATTER (PM)</b>	<b>189.07</b>
<b>SO<sub>2</sub></b>	<b>243.4</b>
<b>VOC</b>	<b>46.6</b>
<b>NO<sub>x</sub></b>	<b>199.3</b>
<b>CO</b>	<b>226.8</b>
<b>HYDROGEN CHLORIDE</b>	<b>9.56</b>
<b>GASEOUS FLUORIDES</b>	<b>9.2</b>

### **LOW NO<sub>x</sub> BURNERS**

After formal comment period for this facility was closed, it was discovered that Sources 18-0120-02 and 18-0120-04 have capacity to burn propane as a back-up fuel. Therefore conditions **E02-5 and E04-2** were added to address Division Low NOx policy. In April, 2005, the Technical Secretary of the Division of Air Pollution Control made the determination that low NOx burner technology was both “reasonable and proper” and “best equipment and technology” for the control of NOx emissions from fuel combustion.

## **VI. Permitting Activities Since Original Permit Issuance of Title V Permit No. 559375 on August 18, 2010.**

### **Minor Modification # 1 (Minor Modification #1 Application dated: April 17, 2014)**

This modification application was a request to add Source 18-0120-07 (New Glazed Tile Manufacturing Process) to the Title V permit. Source 07 had a construction permit, but was not added to the Title V permit. This minor modification #1 was also a request to add the three (3) existing emergency generators under Source 18-0120-08 to the Title V permit. EPA didn't have any comments during the 45-day review and the final Minor Mod #1 was issued on July 25, 20014.

**Note that the emission factors developed during the stack testing conducted on May 28 – 30, 2014 at this facility have been approved by Compliance Validation and are utilized in the Minor Modification #1 permit.**

**18-0120-07** New Glazed Tile Manufacturing Process – Mechanical Tile Cleaning, Heating, Spray Coating of Glaze Slurry and Kiln Firing – Natural Gas and Propane as Fuels- Baghouse **E-19** for the Control of PM emissions from Spray Coating of Glaze Slurry and for Mechanical Tile Cleaning Operation.

The following conditions are listed as Minor Modification #1 to Title V permit number 553975.

**E07-1(MM1), E07-2(MM1), E07-3(MM1), E07-4(MM1), E07-5(MM1).**

**18-0120-08** Emergency Engines: Three (3) Emergency Generators engines are described in the table below. The information shown below was included in the April 17, 2014 Minor Modification #1request. All three (3) emergency engines are subject to the Federal NESHAP, Subpart ZZZZ as indicated.

This source was added to the Title V permit number 553975 through this Minor Modification #1. The following conditions are listed in the permit:

**E08-1(MM1), E08-2(MM1), E08-3(MM1), E08-4(MM1), E08-5(MM1), E08-6(MM1), E08-7(MM1) and E08-8(MM1)**

This minor modification also incorporated the proposed minimum pressure values submitted by the company for compliance purposes in conditions E01-1(MM1), E02-1 (MM1), E03-3(MM1), E04-1(MM1) and E05-2(MM1) as indicated below. This requirement was in the Title V permit 553975.

**18-0120-03 Greenware Forming**– Press Machines and Six (6) Vertical Dryers (uncontrolled) for pressing and drying Operation followed by Greenware brushing and Stone Look application Process. Baghouses #6 and #7 control Tile Pressing. Baghouses #8, #9 and #10 control the Kiln entry, greenware brushing and stone-look application. Maximum Dryer Heat input Capacity of 9.52 MMBTU/Hr for all six Dryers combined – natural gas and propane fired only. Total Flow rate for all baghouses: 173,742 CFM  
**This source is subject to GACT for the Stone-Look Application Process**

The new PM emission rate under Condition E03-4(MM1) was submitted by the company and changed through this minor modification #2.

Source Reference No.	Conditions	Minor Modification #1
18-0120-01	E-01-1	E01-1(MM1): Added minimum pressure drop value.
18-0120-02	E-02-1	E02-1(MM1): Added minimum pressure drop value.
18-0120-03	E-03-3	E03-3(MM1): Added minimum pressure drop value.
18-0120-03	E03-4	E03-4(MM1): PM emission rate increased from 0.62 to 1.5 pounds per hour. This new rate is equal to 6.57 tons pm per year, which is below all pm significant rates. <b>Note this facility is minor source for PSD purposes.</b>
18-0120-04	E-04-1	E04-1(MM1): Added minimum pressure drop value.
18-0120-05	E-05-2	E05-2(MM1): Added minimum pressure drop value.
General section	E3-1	Condition E3-1 has been added to Title V permit to better identify the The facility's officials for technical and legal matters.

As a result of Minor Modification 2, the facility-wide potential emissions are revised as indicated below:

**Revised Facility-wide Potential Emissions**

Potential emissions of criteria air pollutants are listed below:

REGULATED POLLUTANTS	POTENTIAL EMISSIONS TONS PER 12-MONTH BASIS
<b>PARTICULATE MATTER (PM)</b>	<b>206.43</b>
<b>SO<sub>2</sub></b>	<b>243.5</b>
<b>VOC</b>	<b>46.6</b>
<b>NO<sub>x</sub></b>	<b>228.0</b>



<b>CO</b>	<b>232.64</b>
<b>HYDROGEN CHLORIDE</b>	<b>9.56</b>
<b>GASEOUS FLUORIDES</b>	<b>9.2</b>

**Minor Modification # 3 (Minor Modification #3 Application dated: September 11, 2014)**

This modification application is a request to increase the allowable Carbon monoxide (CO) emissions due to new developed (site-specific) emission factors at this facility. Note that the requested changes result in no annual increase in CO limits on a facility-wide basis. The following conditions are listed as Minor Modification #2 to Title V permit number 559375. There were no comments from the EPA during the 45-day comment period for this permit modification #2. MM2 modification was issued on November 17, 2014.

Source Reference No.	Conditions	Minor Modification #2
18-0120-02	E02-6	<b>E02-6(MM2)</b> Increased CO emissions from 23.51 to 50.0 tons per year
18-0120-03	E03-4 (MM1)	<b>E03-4(MM2)</b> Decreased CO emissions from 40.83 to 30.0 tons per year
18-0120-04	E-04-1	<b>E04-1 (MM2)</b> Decreased CO emissions from 162.39 to 144.52 tons per year

**As a result of Minor Modification #3, the facility-wide potential emissions are revised as indicated below:**

**Revised Facility-wide Potential Emissions (Minor Modification #3)**

Potential emissions of criteria air pollutants are listed below:

<b>REGULATED POLLUTANTS</b>	<b>POTENTIAL EMISSIONS TONS PER 12-MONTH BASIS</b>
<b>PARTICULATE MATTER (PM)</b>	<b>206.43</b>
<b>SO<sub>2</sub></b>	<b>243.5</b>
<b>VOC</b>	<b>46.6</b>
<b>NO<sub>x</sub></b>	<b>228.0</b>
<b>CO</b>	<b>Was: 232.64</b> <b>Now: 230.43</b>
<b>HYDROGEN CHLORIDE</b>	<b>9.56</b>
<b>GASEOUS FLUORIDES</b>	<b>9.2</b>

Source Reference No.	Conditions	Minor Modification #3
18-0120-02	E02-6	E02-6(MM2) Increased CO emissions from 23.51 to 50.0 tons per year
18-0120-03	E03-4 (MM1)	E03-4(MM2) Decreased CO emissions from 40.83 to 30.0 tons per year
18-0120-04	E-04-1	E04-1 (MM2) Decreased CO emissions from 162.39 to 144.52 tons per year

**Minor Modification # 3 (Minor Modification #3 Application dated: October 16, 2014)**

This modification (MM3) application is a request to remove propane fuel usage capability throughout the facility. Natural gas only shall be utilized as fuel at StonePeak Ceramics, Inc. The following conditions are listed as **Minor Modification #3** to Title V permit number 559375. During processing this MM#3, The permittee submitted an Administrative Permit Amendment that was utilized through this modification as those changes are highlighted below. There were no comments from the EPA during the 45-day comment period for this permit modification #3. **Minor Modification #3** was issued on January 12, 2015.

Source Reference No.	Conditions	Minor Modification #3
Reporting Requirements	E2(a)(1)(MM3)	Removed references to Semiannual reporting requirements related to the use of Propane from Condition E2(a)(1).
General Permit Requirements	E3-1(MM3)	New Company's I.D.
18-0120-02	E02-4(MM3) E02-5(MM3) E02-6 (MM3)	Removed the reference to Propane use as fuel. (Reserved) Removed the reference to Propane use as fuel in the Table.
18-0120-03	Source Description  E03-2 (MM3)  E03-3 (MM3)	Removed the reference to Propane use as fuel.  Total Flow Rate changed from 173, 742 to 143, 292 CFM. And, Baghouse E13 with 13,804 CFM was changed to Baghouse E-20 With 3,804 CFM.  The required Minimum Pressure Drop value for Baghouse E-20 Was changed from 1.5 to 2.0 inches of water across Baghouse E-20.
18-0120-04	E-04-1(MM3)  E04-2 (MM3) E04-7 (MM3)	Removed the reference to Propane as fuel for compliance method for NO <sub>x</sub> Emissions while utilizing propane. (Reserved) Removed the reference to Propane use as fuel.
18-0120-07	E07-3 (MM3)	Removed the reference to Propane use as fuel.

**Minor Modification # 4 (Minor Modification #4 Application dated: March 25, 2015)**

This modification application is a request to upgrade the baghouses serving three (3) Kilns which will result in increased flow rates and a slight increase in the particulate (PM) emissions. The upgrades include adding two additional modules to each baghouse and installing larger fans and motors. The allowable PM emissions will be increased from current limit of **3.91** to **4.91** pounds per hour. MM4 was issued on June 24, 2015.

**Revised Facility-wide Potential Emissions (Minor Modification #4)**

Potential emissions of criteria air pollutants are listed below:

REGULATED POLLUTANTS	POTENTIAL EMISSIONS TONS PER 12-MONTH BASIS
PARTICULATE MATTER (PM)	Was; 206.43 Now: 210.77
SO <sub>2</sub>	159.61
VOC	46.6
NO <sub>x</sub>	228.08
CO	230.43
HYDROGEN CHLORIDE	9.56
GASEOUS FLUORIDES	9.2

**Minor Modification # 5 (Minor Modification #5 Application dated: May 18, 2015)**

This modification application is a request to add a new Tile Processing Line which will include installation of a new Kiln, two (2) new Spray Dryers, one (1) new Horizontal Dryer and one (1) new Diesel-Fired Emergency Generator. Baghouses for the control of dust emissions are also being added. There were no comments from the EPA during the 45-day comment period for this permit modification #5. **Minor Modification #5** was issued on August 28, 2015.

**Revised Facility-wide Potential Emissions (Minor Modification #5)**

Potential emissions of criteria air pollutants are listed below:

REGULATED POLLUTANTS	POTENTIAL EMISSIONS TONS PER 12-MONTH BASIS
PARTICULATE MATTER (PM)	Was: 210.77 Now: 294.95
SO <sub>2</sub>	Was: 191.22 Now: 196.68
VOC	Was: 46.6 Now: 79.4
NO <sub>x</sub>	Was: 228.0 Now: 264.9*
CO	Was: 230.43 Now: 348.06
HYDROGEN CHLORIDE	9.56
GASEOUS FLUORIDES	9.2

\*The current (short term) allowable limits for NO<sub>x</sub> emissions satisfy the Division's Low-NO<sub>x</sub> technology requirements, per the Division's internal decision on August 28, 2015.

**NOTE in regard to Minor Modification #5:**

CONSTRUCTION AND OPERATING PERMITS CHAPTER 1200-03-09 of Tennessee Air Pollution Control regulations.

TAPCR 1200-03-09(4)(a)(6)

If a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of this paragraph shall apply to the source or modification as though construction had not yet commenced on the source or modification.

**Minor Modification # 6 (Minor Modification #6 Application dated: July 14, 2015)**

This modification application is a request to change the required minimum pressure drop value at source 18-0120-5 (Product Preparation) from **1.0** inches to **0.4** inches of water across the baghouse **E-14**. This change is due to improvement of method of cleaning the tiles production at this facility. There were no comments from the EPA during the 45-day comment period for this permit modification #6. Minor Modification #6 was issued on September 18, 2015. **All allowable emissions are unchanged as indicated below:**

**Revised Facility-wide Potential Emissions (Minor Modification #6)**

Potential emissions of criteria air pollutants are listed below:

REGULATED POLLUTANTS	POTENTIAL EMISSIONS TONS PER 12-MONTH BASIS
PARTICULATE MATTER (PM)	294.95
SO <sub>2</sub>	196.68
VOC	79.4
NO <sub>x</sub>	264.9*
CO	348.06
HYDROGEN CHLORIDE	9.56
GASEOUS FLUORIDES	9.2

\*The current (short term) allowable limits for NO<sub>x</sub> emissions satisfy the Division's Low-NO<sub>x</sub> technology requirements, per the Division's internal decision on August 28, 2015.

**Two (2) Administrative Permit Amendments Dated March 7, 2016:**

These two amendments were combined into one Administrative permit amendment. The first amendment is in regard to a change of Responsible Official, and the 2<sup>nd</sup> one is in regard to Source **18-0120-04**, for placing minimum pressure drop values for baghouses E-5 (K1), E17 (K2), and E18 (K3). **All allowable emissions are un-changed as result of these amendments.** The Administrative permit amendment 1 was issued on May 23, 2016. Please note information in regard to Conditions **E-09-1** and **E11-1** must be submitted within 30 days of issuance of this Administrative permit amendment 1.

**Minor Modification # 7 and #8 Applications dated: May 20, and May 25, 2016)**

***Note that part of Minor Modification application #8 qualifies for this procedure, but part of it not, and needs a Significant Modification application as indicated below.***

These modification applications are a request to change the minimum pressure drop values for four baghouses that control Three (3) Natural Gas Fired Spray Dryers (atomizers) to Produce Sized Spheroid Pellets at source 80-0120-02. These changes are due to "higher clay slurry moisture content, reduced atomizer operating temperature, and reduced production time due to increased changeovers at this operation".

These modification applications (**#7 & #8**) are also for removing Glazed Tile Manufacturing operation at Source 18-0120-07, reducing the number of dust collectors for housekeeping purposes at Source 18-0120-06, revising the date of the performance testing requirements, and some minor changes in allowable emissions and corresponding emission factors. However, a request to change the method of compliance for gaseous Fluorides, expressed as hydrogen fluoride (HF) and Hydrochloric Acid (HCl) emissions for the Kiln (Firing Formed Greenware operation) at Source 18-0120-11 that is controlled with a lime

injection baghouse does not qualify for a minor modification and must be utilized through a Significant Modification procedure under TAPCR 1200-03-09-.02(11). The Permittee was notified of a need for a Significant Modification application on June 20, 2016. As a result of these modifications, all allowable emissions adjusted as indicated below:

**Revised Facility-wide Potential Emissions (Minor Modification #7 and #8)**

Potential emissions of criteria air pollutants are listed below:

REGULATED POLLUTANTS	POTENTIAL EMISSIONS TONS PER 12-MONTH BASIS
PARTICULATE MATTER (PM)	285.14
SO <sub>2</sub>	196.68
VOC	79.4
NO <sub>x</sub>	264.9*
CO	348.42
HYDROGEN CHLORIDE	9.56
GASEOUS FLUORIDES	9.2

\*The current (short term) allowable limits for NO<sub>x</sub> emissions satisfy the Division's Low-NO<sub>x</sub> technology requirements, per the Division's internal decision on August 28, 2015.

**On August 11, 2016, EPA indicated that they have no comments on the draft permit during the 45-day comment period. Minor Modification #7 & #8 was issued on August 12, 2016.**

**Title V Renewal Permit No. 569918:**

The Title V renewal applications that were utilized in the preparation of this permit are dated February 12, 2015 and (subsequent amended application) May 25, 2016. The Minor Modification application dated December 8, 2016 also was utilized in the preparation of this permit.

The Minor Modification application was a request to increase the CO emissions (from **50.0 to 60.0** Tons per consecutive 12-month period) at Source 18-0120-02 (three natural gas-fired spray dryers, atomizers) and to decrease the CO emissions (from **30.0 to 25.0** Tons per consecutive 12-month period) at Source 18-0120-03 (Greenware forming, Press machines and six Vertical dryers), and also a decrease of CO emissions (from **144.52 to 139.52** Tons per consecutive 12-month period) at Source 18-0120-04 (Firing – Three Kilns for formed Freeware) at this Ceramic manufacturing operations. There is no increase of any emissions as a result of issuance of this Title V renewal permit.